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REQUEST FOR REDESIGNATION AND
MAINTENANCE PLAN FOR
OZONE ATTAINMENT
IN THE INDIANA PORTION OF THE
LOUISVILLE MODERATE OZONE
NONATTAINMENT AREA

Clark and Floyd Counties, Indiana

Developed By:
The Indiana Department of Environmental Management

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* This information is unavailable at this time, but will be included prior to final submittal to US EPA

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1.0 INTRODUCTION

This document is intended to support Indiana's request that Clark and Floyd Counties, which are part of the Louisville moderate ozone nonattainment area, be redesignated from nonattainment to attainment of the one-hour ozone standard. The Louisville area has recorded three years of complete, quality assured ambient air quality monitoring data for 1998 – 2000 demonstrating attainment with the one-hour standard.

Section 107 of the Clean Air Act establishes specific requirements to be met in order for an area to be considered for redesignation including:

- (a) A determination that the area has attained the one-hour ozone standard;
- (b) An approved State Implementation Plan (SIP) for the area under Section 110(k);
- (c) A determination that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the SIP and other federal requirements.
- (d) A fully approved maintenance plan under Section 175(A);
- (e) A determination that all Section 110 and Part D requirements have been met.

This document addresses each of those requirements. It also provides additional information to support continued compliance with the one-hour ozone standard.

1.1 Background

The Clean Air Act Amendments of 1990 (CAAA) required areas failing to meet the National Ambient Air Quality Standard (NAAQS) for ozone to develop SIPs to expeditiously attain and maintain the standard. Historically, exceedances of the ozone standard have been monitored in Jefferson County and portions of Bullitt and Oldham Counties located in north central Kentucky and in Clark and Floyd Counties located in southeastern Indiana (hereafter known as the Louisville nonattainment area).

The Louisville nonattainment area was originally designated as nonattainment pursuant to the 1977 Clean Air Act Amendments and later classified as moderate nonattainment pursuant to the 1990 Amendments. As a result of this classification, the States of Kentucky and Indiana were subject to new requirements, including development of a plan to reduce volatile organic compound (VOC) emissions and a plan demonstrating that the area would meet the federal one-hour air quality standard for the pollutant ozone (ozone standard)¹ by November 15, 1996.

¹ The federal one-hour air quality standard for ozone (also known as the National Ambient Air Quality Standard, or NAAQS, is 0.12 parts per million (ppm). According to US EPA guidance, any monitored value 0.125 ppm (125 parts per billion [ppb]) or greater is considered an exceedance of the ozone standard.

Since 1990, in compliance with the CAAA, Indiana developed and implemented several new programs and new or amended rules designed to control emissions of volatile organic compounds (VOC) and nitrogen oxides (NO_x), which are precursors of ozone. The status of these rules with respect to their approval by the US Environmental Protection Agency (US EPA) as SIPs is detailed in Section 6.0.

Both the frequency and severity of one-hour ozone exceedances have decreased significantly since 1990. However, in spite of these efforts, the Louisville nonattainment area did not attain the ozone standard by the prescribed date. Based on positive air quality trends, the Louisville nonattainment area did qualify for and receive a one-year extension of the attainment deadline to November 15, 1997, however, air quality did not meet the ozone standard by the new attainment date.

In addition to the air quality not meeting the ozone standard, air quality modeling work undertaken by the States of Kentucky and Indiana indicated that levels of ozone and ozone precursors coming into the nonattainment area were significant and that reductions in these pollutants would be necessary for the area to demonstrate attainment of the standard.

This problem is not unique to Louisville. In fact, it has been the subject of a great deal of technical analysis and public debate over the past several years. In September 1998, US EPA responded to the long-range ozone transport problem by mandating that 22 states in the eastern United States and the District of Columbia develop and implement a rule requiring significant reductions in nitrogen oxides (NO_x) emissions from major emitting sources, primarily electric generating plants, large industrial boilers, large gas turbines, and large NO_x-emitting industrial processes such as cement kilns. This mandate is referred to as the NO_x SIP Call. Implementation of the NO_x SIP Call would result in significant NO_x reductions across the eastern United States. Indiana and Kentucky are among the States affected by this action.

Recognizing that regional NO_x reductions were necessary for many areas to meet the ozone standard, including the Louisville nonattainment area, US EPA developed a guidance memorandum entitled "Extension of Attainment Dates for Downwind Transport Areas" dated July 16, 1998 (64 FR 14441, March 25, 1999), herein referred to as the "extension policy". The extension policy relies heavily on the agency's conclusion that the area is subject to interstate transport of ozone and that the NO_x reductions required by the NO_x SIP Call would, in combination with some additional local measures, if necessary, be sufficient to attain the ozone standard.

In addition to issuing the extension policy, US EPA also published a joint proposed rule (64 FR 27734, May 21, 1999) to either extend the attainment date for the Louisville ozone nonattainment area or reclassify (or bump up) the Louisville ozone nonattainment area to the next higher classification identified in the Clean Air Act if the Louisville nonattainment area does not comply with the requirements of the extension. If the Louisville nonattainment area were to be bumped up, the Louisville nonattainment area would be reclassified as serious, which would establish additional requirements, including a plan for further reducing local VOC and/or NO_x emissions. The May 21, 1999 Federal Register notice also provided additional guidance to meet the extension policy.

The extension policy includes the provision that the attainment date may be extended to the date no later than the date that the reductions are expected from upwind areas. Consistent with how attainment deadlines are established in Section 181 of the Clean Air Act, Kentucky and Indiana understood US EPA to mean that attainment of the standard would be assessed after the end of the ozone season in which the emission reductions are expected to take effect.

Based on this policy and anticipated regional NO_x reductions resulting from the NO_x SIP Call, the States of Kentucky and Indiana were able to submit plans, in November 1999, demonstrating that the area would comply with the ozone standard once the regional NO_x emission reductions took effect. These plans included significant technical analysis to support this conclusion including Urban Airshed Model (UAM) modeling analysis and other information, such as air quality and emission trends.

However, before US EPA completed final action on these plans, monitoring data indicated that air quality improved such that the area was in compliance with the ozone standard for the period 1998-2000. Because ozone levels are affected by many factors, such as emissions, wind patterns, sunlight, this occurrence is not unusual for an area where previous peak ozone levels were close to the ozone standard. US EPA has developed guidance addressing redesignation requests under this scenario.

1.2 Geographical Description

Following is a brief description of the Louisville moderate nonattainment area.

Jefferson County and portions of Bullitt and Oldham Counties located in north central Kentucky and Clark and Floyd Counties located in southeastern Indiana are part of the Louisville metropolitan statistical area. This area is surrounded by the Kentucky counties of Hardin, Henry, Nelson, Shelby, Spencer, and Trimble and the Indiana counties of Harrison, Jefferson, Scott, and Washington. The Ohio River flows along the border between Kentucky and Indiana and the area lies within the Ohio River Valley. The Louisville Moderate Nonattainment Area is shown on Figure 1.

The Indiana Department of Environmental Management (IDEM), on behalf of the State of Indiana, is requesting redesignation for Clark and Floyd Counties in Indiana. The Kentucky Department of Environmental Protection (KDEP) and Air Pollution Control District of Jefferson County (APCD) are responsible for Jefferson County and portions of Bullitt and Oldham counties in Kentucky and are requesting redesignation from US EPA Region IV, concurrently.

1.3 Status of Air Quality

Ozone monitoring data for the most recent three (3) years, 1998 through 2000, demonstrates that air quality has met the NAAQS for ozone in all respects in the Louisville nonattainment area. This fact, accompanied by the decreases in emission levels discussed in Section 4.0, justifies a redesignation to attainment for the subject area based on Section 107(d) (3) (D) of the CAAA.

2.0 REQUIREMENTS FOR REDESIGNATION

2.1 General

Section 110 and Part D of the CAAA list a number of requirements that must be met by moderate nonattainment areas prior to consideration for redesignation to attainment. In addition, US EPA has published detailed guidance in a document entitled **Procedures for Processing Requests to Redesignate Areas to Attainment**, issued September 4, 1992, to Regional Air Directors. This document is hereafter referred to as “Redesignation Guidance”. This Request for Redesignation and Maintenance Plan is based on the Redesignation Guidance, supplemented with additional guidance received from staff of the Regulation Development Section of US EPA Region V.

The subsections below refer in greater detail to the requirements listed in Section 1.0 of this document. Each subsection describes how the requirement has been met. The pertinent sections the CAAA are referenced where appropriate.

2.2 Ozone Monitoring 107(d)(3)(D)(i)

- 1) A demonstration that the NAAQS for ozone, as published in 40 CFR 50.4, have been attained. Ozone monitoring data must show that violations of the ambient standard are no longer occurring.
- 2) Ambient monitoring data quality assured in accordance with 40 CFR 58.10, recorded in the Aerometric Information and Retrieval System (AIRS) data base, and available for public view.
- 3) A showing that the average annual number of expected exceedances of the standards, according to 40 VFR 50.9, is less than, or equal to 1.0, based on data from all monitoring sites in the area or its affected downwind environs. This showing must rely on three (3) complete, consecutive calendar years of quality assured data.
- 4) A commitment that, once redesignated, the State will continue to operate an appropriate monitoring network to verify the maintenance of the attainment status.

2.3 Emission Inventory 107(d)(3)(D)(iii)

- 1) A comprehensive emission inventory of the precursors of ozone completed for the base year.
- 2) A projection of the emission inventory to a year at least 10 years following redesignation.

- 3) A demonstration that the projected level of emissions is sufficient to maintain the ozone standard.
- 4) A demonstration that improvement in air quality between the year violations occurred and attainment was achieved is based on permanent and enforceable emission reductions and not on temporary adverse economic conditions or unusually favorable meteorology.
- 5) Provisions for future annual updates of the inventory to enable tracking of the emission levels including an annual emission statement from major sources.

2.4 Modeling Demonstration

While no modeling is required for redesignating ozone non-attainment areas, IDEM has relied upon it extensively to determine necessary controls for this area.

2.5 Controls and Regulations 107(d)(3)(D)(ii) & 107(d)(3)(D)(v)

- 1) A US EPA approved SIP control strategy that includes Reasonably Available Control Technology (RACT) requirements for existing stationary sources covered by Control Technology Guidelines (CTG) and non-CTG RACT for all major sources.
- 2) Evidence that control measures required in past ozone SIP revisions have been fully implemented.
- 3) Acceptable provisions to provide for new source review.
- 4) Assurances that existing controls will remain in effect after redesignation, unless the State demonstrates through photochemical modeling that the standard can be maintained without one or more controls.
- 5) If appropriate, a commitment to adopt a requirement that all transportation plans conform with, and are consistent with, the SIP.

2.6 Corrective Actions for Potential Future Violations of the Standard

- 1) A commitment to submit a revised plan eight years after redesignation.

- 2) A commitment to expeditiously enact and implement additional contingency control measures in response to exceeding specified predetermined levels (triggers) or in the event that future violations of the ambient standards occur.
- 3) A list of potential contingency measures that would be implemented in such an event.
- 4) A list of VOC sources potentially subject to future controls.

3.0 OZONE MONITORING

3.1 Ozone Monitoring Network

There have been seven (7) monitors measuring ozone concentrations in the Louisville nonattainment area. Two (2) of the monitors (Airs IDs 18-019-0003 and 18-043-1004) are currently operated by the IDEM, Office of Air Quality. These two sites were used for the Indiana portion of the redesignation request. The other five (5) monitors are operated by the KDEP, Division of Air Quality (DAQ), and the Jefferson County APCD. A listing of the sites with the highest reading from 1998 through 2000 is shown in Appendix A on the Aerometric Information Retrieval System (AIRS) Quick Look Report. The locations of the monitoring sites for the Louisville nonattainment area are shown on Figure 1.

3.2 Ambient Ozone Monitoring Data

The NAAQS for ozone is attained when the expected number of days per calendar year with maximum hourly concentrations above 0.125 parts per million (ppm) is equal to or less than 1.0 when averaged over three (3) years. As shown in Table I, there have been ten (10) exceedances of the ozone standard in the Louisville nonattainment area since 1998. The latest exceedance occurred in 1999 in Oldham County, Kentucky.

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TABLE I

Ozone Exceedances – Louisville Nonattainment Area

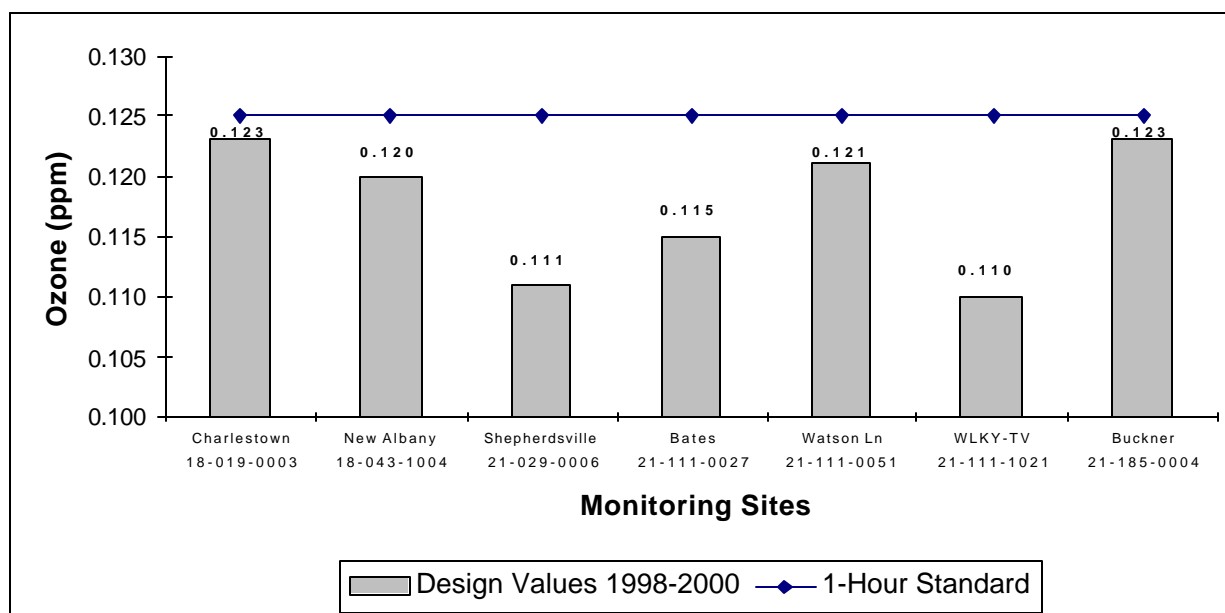
AIRS ID	Site	Date	Highest Reading (ppm)	# Days / Year (>0.125 ppm)
18-019-0003	Clark Co, Army Ammunition (Charlestown)	09/13/98	0.156	3
		09/05/98	0.140	
		09/12/98	0.138	
18-043-1004	Floyd Co, Green Valley (New Albany)	09/13/98	0.145	2
		05/14/98	0.131	
21-111-0027	Jefferson Co, 7601 Bardstown Rd (Bates)	09/12/98	0.125	1
21-111-0051	Jefferson Co, 7201 Watson Ln (Watson Ln)	09/13/98	0.132	1
21-111-1021	Jefferson Co, 1918 Mellwood Av (WLKY-TV)	09/13/98	0.142	1
21-185-0004	Oldham Co, 3995 Morgan Rd (Buckner)	09/12/98	0.129	1
		08/16/99	0.136	1

Appendix A provides a Quick Look Summary Report from the AIRS and the AIRS Violation Day Count for the same data, from which the actual dates for the above table were obtained. The Quick Look Summary Report shows:

- 1) The four highest readings for all ozone monitoring sites in the subject and adjacent counties for the years 1998 through 2000. These are found in descending order under the heading **Valid Daily 1-Hr maximum**.
- 2) The number of valid readings from each site is found in the column **Num Meas** (Number Measured).
- 3) The expected number of exceedances for each site is shown in the column **Vals > .125 Est** (Estimated number of values larger than 0.125 ppm)
- 4) A single exceedance for the one-hour ozone standard occurred in 1999 and there have been no exceedances of the standard since then.

The design values were calculated for the Louisville nonattainment area and the data demonstrate that the NAAQS for ozone has been attained in Floyd and Clark Counties. Chart 1 visually demonstrates the design values for the Louisville nonattainment area.

Chart 1
Design Values for the Louisville Nonattainment Area



3.3 Quality Assurance

IDEM has quality assured all data shown in Appendix A in accordance with 40 CFR 58.10 and the Indiana Quality Assurance Manual. IDEM has recorded the data in the Aerometric Information Retrieval System (AIRS) database and, thus, they are available to the public.

3.4 Expected Exceedances

In addition to exceedances recorded by area monitors, there may be days in which monitoring data are unavailable. Analysis of the data for the Charlestown monitoring site in Clark County shows the number of expected exceedances, for 1998, as 3.2. When averaged over three years, the number of expected exceedances is above 1.0, thereby potentially affecting the attainment status of the Louisville non-attainment area. The US EPA looks at the quantity of “missing” monitoring data and attempts to make an allowance for times when an exceedance might have occurred and no monitoring record exists.

This “expected exceedance” number is included in the Quick Look report and this information is used in determining an area’s attainment status.

However, 40 CFR Part 50, Appendix H, which describes the calculation of expected exceedances, also provides a method of reducing this value when there is little likelihood that an exceedance would occur. Such is the case at the Charlestown site. Appendix H states that if the highest reading the day before and the day after the missing data is less than 75% of the NAAQS, then the missing data is also

assumed to be less than the NAAQS. Therefore, IDEM excluded April 3 – 4, 1998 and August 1, 1998 from the missing data calculations. The data are flagged, but the Quick Look report, because of the software, does not show this information.

On December 11, 2000, IDEM, submitted a letter to US EPA Region V requesting an attainment determination for Clark and Floyd Counties, Indiana. On December 14, 2000, US EPA Region V made a determination that the area has demonstrated attainment of the one-hour standard. In this response letter, US EPA concurred with IDEM's analysis that weather conditions were not conducive to ozone formation on the days for which no monitoring data was available. With the exclusion of these days, the number of exceedances for the Charleston monitor becomes 1.0, meeting the ambient air quality standard. Copies of the correspondence are included in Appendix B.

3.5 Continued Monitoring

Indiana commits to continue monitoring ozone levels at the sites indicated in Appendix A. IDEM will discuss changes in the siting that may become necessary with US EPA Region V staff. IDEM will continue to quality assure the monitoring data to meet the requirements of 40 CFR 58. Connection to a central station and updates to the IDEM website, (www.state.in.us/idem/) will provide real time availability of the data and knowledge of any exceedances. IDEM will enter all data into AIRS on a timely basis in accordance with federal guidelines.

4.0 EMISSION INVENTORY

4.1 Base Year Inventory

IDEM prepared a comprehensive inventory for Clark and Floyd Counties, including area, mobile, and point sources for precursors of ozone (volatile organic compounds and nitrogen oxides) for base year 1999.

- The non-highway and area sources were projected from the Indiana 1996 periodic inventory submitted to US EPA. These projections were made from the US Department of Commerce Bureau of Economic Analysis (BEA) growth factors, described below, with some updated local information.
- Mobile source emissions were calculated from MOBILE5B and KIPDA travel model output.
- Point source information was compiled from IDEM's 1999 annual emissions statement database and the 1999 US EPA Air Markets acid rain database.
- Biogenic emissions are not included in these summaries.

Appendices C-F contain detailed information for these emissions. Table II below summarizes the totals.

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TABLE II

**Total Emissions for Base Year 1999 - estimated pounds per summer day
Clark and Floyd Counties, Indiana**

	VOC	NO_x
Point	8326	52088
Area	35332	16778
Nonhighway	14712	12503
Mobile	19601	38660
Total	77971	120029

4.2 Emission Projections

In consultation with the US EPA, KDEP, and APCD, IDEM selected the year 2012 as the maintenance year for this redesignation request. This document contains projected emissions inventories for 2005 and 2012, for Clark and Floyd Counties, Indiana's portion of the nonattainment region only.

IDEM performed emission projections using the following approaches.

- Point source projections were performed by using the 1999 base year inventory and the growth factors from the Ozone Transport Assessment Group (OTAG) and Lake Michigan Air Directors Consortium (LADCO)² emissions databases. Exceptions were made for the Cinergy PSI Gallagher Generating Station and ESSROC, whose emissions are calculated based upon Indiana's proposed NO_x reduction rule and their NO_x budget allocations.
- Mobile source emission projections are based on the US EPA MOBILE 5B model and KIPDA travel model output. All projections were made in accordance with "Procedures for Preparing Emissions Projections"; US EPA-45/4-91-019.
- Lacking source specific data, the non-highway and area sources projections were projected from the Indiana 1996 periodic inventory submitted to US EPA. These numbers are based on the US Department of Commerce BEA regional growth data. This is based on statewide earnings for standard industrial classification (SIC) codes.

The detailed inventory information for 2005 and 2012 is in **Appendices C-F**. Tables III and IV show the summaries of this information.

² The Lake Michigan Air Directors Consortium was formed by the Lake Michigan States, Indiana, Illinois, Michigan, and Wisconsin, to provide a platform for regional air quality assessment and establish a technically credible modeling system for the lower Lake Michigan area.

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TABLE III

**Total Emissions for Interim Year 2005 - projected pounds per summer day
Clark and Floyd Counties, Indiana**

	VOC	NO_x
Point	8987	24696
Area	34214	17558
Nonhighway	15390	12922
Mobile	17167	33327
Total	75758	88503

TABLE IV

**Total Emissions for Maintenance Year 2012 - projected pounds per summer day
Clark and Floyd Counties, Indiana**

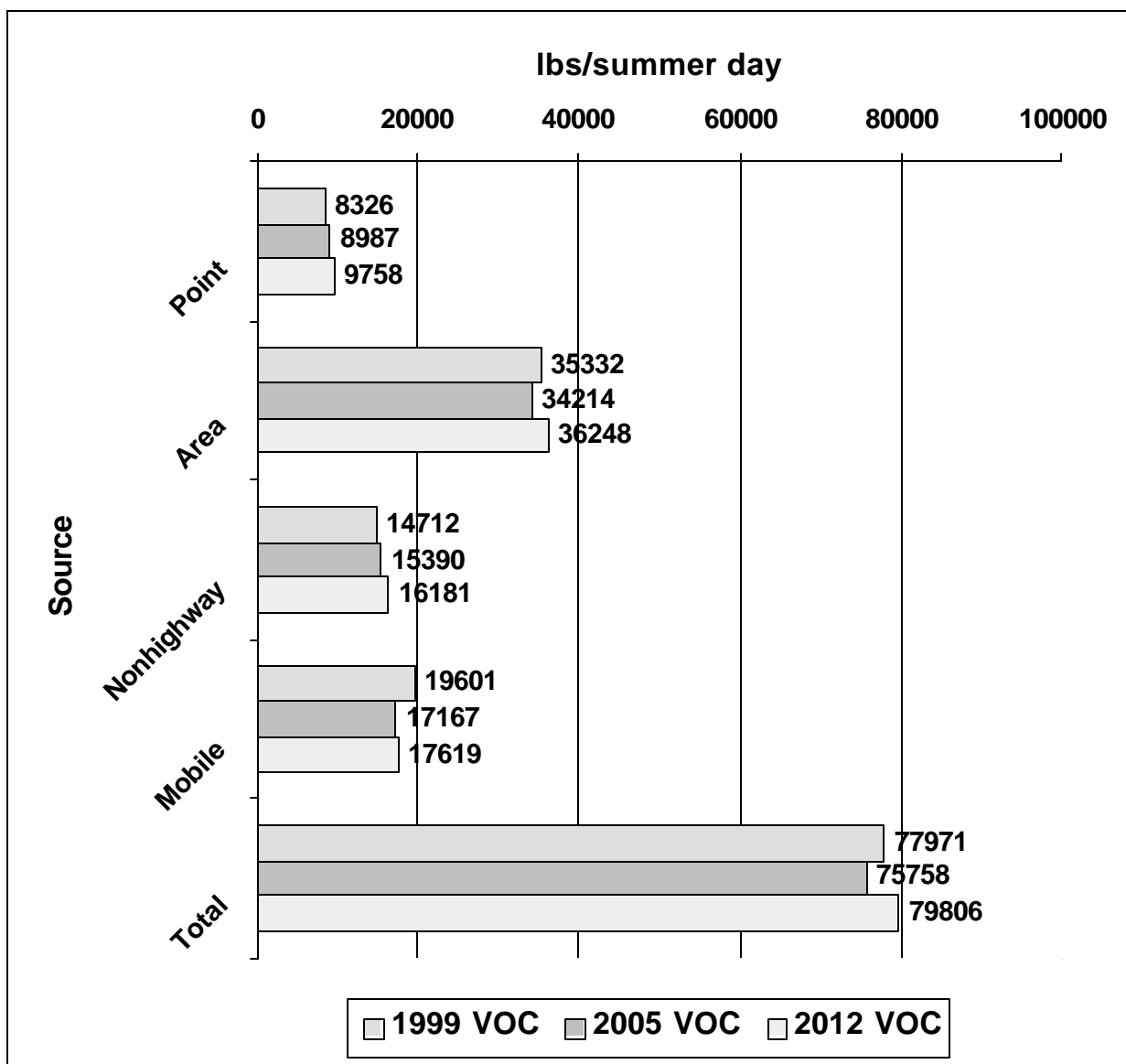
	VOC	NO_x
Point	9758	24768
Area	36248	18468
Nonhighway	16181	13411
Mobile	17619	25646
Total	79806	82293

Emission trends are an important gauge for continued compliance of the ozone standard. Therefore, IDEM performed an initial comparison of the base year and maintenance year inventories, which is summarized below. Charts 2 and 3 visually compare the 1999 estimated and 2012 projected emission sources.

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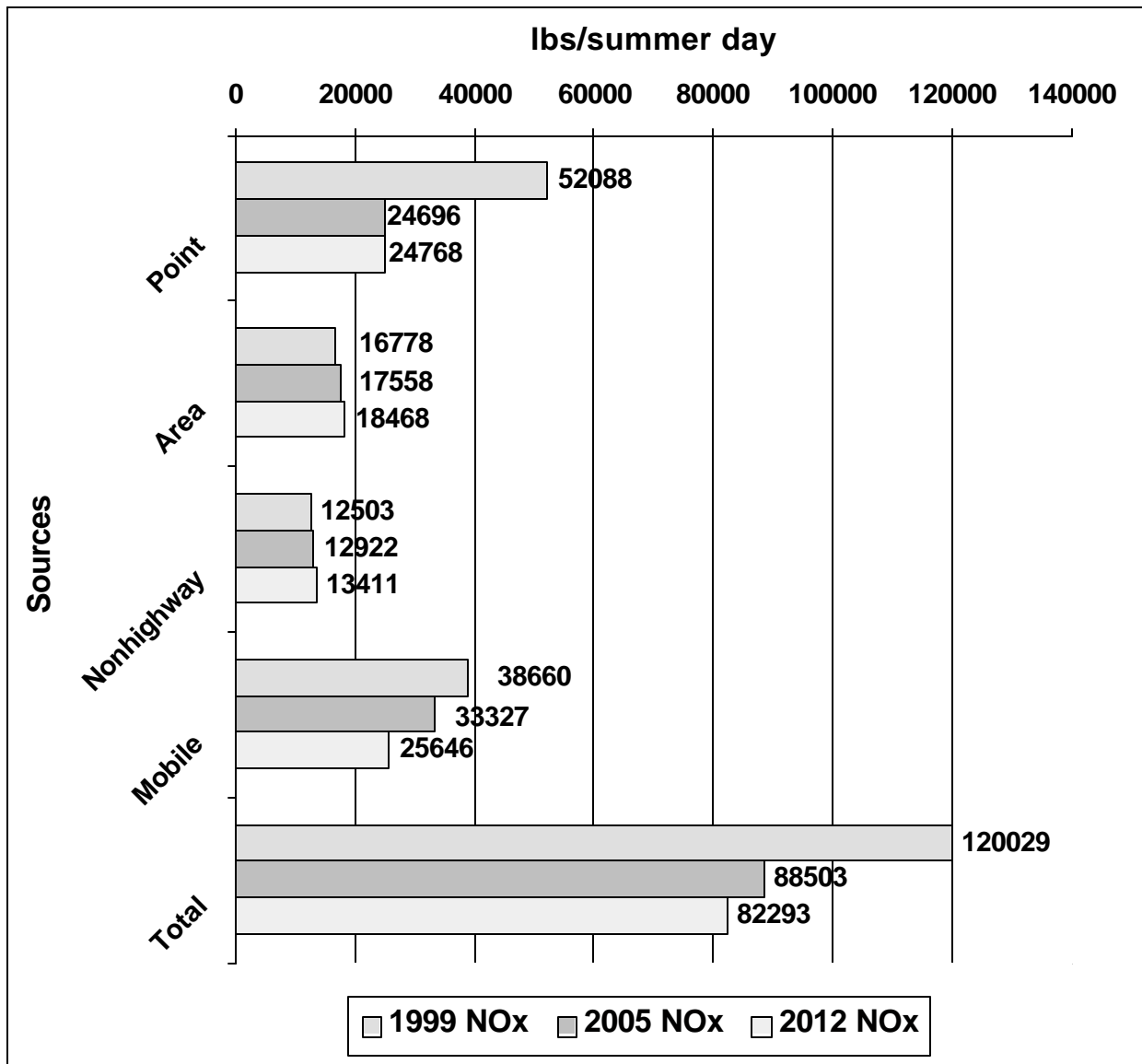
Chart 2

Comparison of 1999 Estimated and 2005 and 2012 Projected VOC Emissions



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Chart 3

Comparison of 1999 Estimated and 2005 and 2012 Projected NOx Emissions



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TABLE V

**Comparison of 1999 estimated and 2012 projected emission estimates
in pounds per summer day
Clark and Floyd Counties, Indiana**

	1999	2012	Change
VOC	77971	79806	1835 (2.4%)
NOx	120029	82293	-37736 (-31.4%)

VOC emissions in the Indiana portion of the non-attainment area are projected to increase by 2.4%. These emissions show an increase due to expectations that population will grow considerably in this area. However, VOC emissions across the entire non-attainment area are projected to decrease overall, as shown in Table VI. A summary of the emissions from the affected Kentucky counties used to develop Tables VI and VII is included in Appendix G.

In addition to the overall reductions in VOC, several other factors should also be considered:

- Reductions from low sulfur fuel were not included in the Indiana non-highway inventory projections. These fuels are expected to be in place well before 2012, for both gasoline and diesel-powered equipment. Therefore, VOCs in this inventory are overestimated for 2012.
- LADCO modeling, which showed attainment, was based on projected area-wide VOC emissions of 388,300 pounds per day versus the 266,926 pounds per day projected in this submittal. (See discussion in Section 7.0 of this report).
- LADCO modeling also shows that the significant regional NOx reductions resulting from the NOx SIP Call³ are key to ensuring compliance with the ozone standard.

LADCO modeling projects NOx emissions to decrease by 31.4%, in the two counties in Indiana. They will also decrease in the Kentucky portions of the non-attainment area. Further, due to the implementation of the NOx SIP Call across the eastern US, NOx and ozone levels entering this area will also be decreased. A modeling analysis to support these conclusions is summarized in Section 7.0 of this document.

³ To address the ozone transport problem, US EPA finalized rulemaking in September 1998 requiring 22 States and the District of Columbia to reduce NOx emission within each State to a level consistent with a NOx emissions budget identified in the final rule (63 FR 57356). These States, including Indiana, were required to submit a revision to their State Implementation Plans addressing the regional transport of ozone, consisting of rules to reduce NOx emissions from electric utility boilers, cement kilns, large industrial boilers, and stationary internal combustion engines. Indiana's proposed rule was adopted by the Air Pollution Control Board on February 7, 2001. The rule is expected to be final adopted in the summer of

TABLE VI
Louisville Ozone Non-attainment Area VOC Emissions
pounds per summer day

1990 est	1996 est	1999 est	2005 est	2012 proj
523900	329480	291291	268458	266926

TABLE VII
Louisville Ozone Non-attainment Area NO_x Emissions
pounds per summer day

1990 est	1996 est	1999 est	2005 est	2012 proj
503280	483600	542469	340803	307113

4.3 Demonstration of Maintenance

Ambient air quality data from all monitoring sites indicate that air quality met the NAAQS for ozone in 2000. Page 9 of the Redesignation Guidance states “A state may generally demonstrate maintenance of the NAAQS by either showing that future emissions of a pollutant or its precursors will not exceed the level of the attainment inventory, or by modeling to show that the future mix of sources and emissions rates will not cause a violation of the NAAQS.” NO_x emissions will be substantially reduced, while VOC emissions will slightly decrease. Section 7.0 below discusses the implications of these emissions trends. Air quality should meet the ozone standard/NAAQS through the projected year 2012.

In Indiana, major point sources in all counties (and all sources in Clark and Floyd counties with actual NO_x and VOC emission greater than 10 tons per year) are required to submit air emissions information annually in accordance with the Emission Statement Rule, 326 IAC 2-6. IDEM prepares a new periodic inventory for all ozone precursor emission sectors every three (3) years. These ozone precursor inventories will be prepared for 2002, 2005, 2008, and 2011, as necessary, to comply with the inventory reporting requirements established in the CAAA. Emissions information will be compared to the 1999 base year and the 2012 projected maintenance year inventories to assess emission trends, as necessary, to assure continued compliance with the ozone standard.

4.4 Permanent and Enforceable Emissions Reductions

Permanent and enforceable reductions of volatile organic compound have contributed to the attainment of the ozone standard. Some of these were due to the application of RACT rules, some due to the

application of tighter federal standards on new vehicles, and some due to closure of point source facilities. Also, Title IV of the Clean Air Act required the reduction of oxides of nitrogen from utility sources. Section 6.0 identifies these reductions along with an explanation of their status. None of these reductions are banked. Any reopening of closed facilities at these sources will require review as a new source.

4.5 Provisions for Future Updates

As required by Section 175A(b) of the CAAA, Indiana commits to submit to the Administrator, eight (8) years after redesignation, an additional revision of this SIP. The revision will contain Indiana's plan for maintaining the national primary ozone air quality standard for ten (10) years beyond the first 10-year period after redesignation.

5.0 TRANSPORTATION CONFORMITY BUDGETS

Summarized below are the regional mobile source emission budgets for transportation conformity:

2012 Volatile Organic Compounds (VOC): **50.93 Tons/Day**
 2012 Oxides of Nitrogen (NO_x): **92.93 Tons/Day**

The following outlines the key methods and assumptions that were used to develop the mobile source emissions inventories:

5.1 Emissions Modeling:

1. The USEPA MOBILE 5b emission factor model is used.
2. New model year age distribution tables (1999 VET data) are used.
3. Recently revised (12/00) VMT mix and fleet mix tables are used (from 1997 FHWA VMT and 1999 VET data). These data reflect increases in heavy-duty diesel traffic and a market shift toward sports utility vehicles (SUVs) as shown below (1990 data were used in the APCD modeling prior to 10/2000):

Data	LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDT	MC	Basis
1999	.636	.270	.002	.006	.001	.004	.079	.002	Fleet mix: 1999 VET (M6 idle) VMT mix: 1996-2000 (M6)
	.560	.290	.002	.005	.001	.005	.135	.002	
1990	.775	.185	.006	.010	.011	.003	.001	.009	Fleet mix: 1990 VET (idle) VMT mix: 1990 HPMS + VET data

	.714	.187	.021	.020	.010	.003	.038	.007
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4. MOBILE6 mileage accumulation rates are forced into MOBILE5 (from EPA 1996 data). Prior to 12/00, MOBILE default mileage accumulation rates were used.
5. Tier2/Sulfur reductions are applied in post-processing (EPA MOBILE5 Information Sheet 8 method).
8. I/M programs are assumed for Clark-Floyd Counties, Indiana, and Jefferson County, Kentucky:

Indiana (Clark and Floyd Counties) I/M program assumed to be biennial IM240 type with antitampering, applying to model years 1968 to current except excluding latest 4 model years, receiving full technician training credit (TTC), and parameters for waiver rates, etc. originally set by IDEM personnel.

Jefferson County VET I/M program assumed to be annual loaded/idle mode with antitampering and evaporative pressure test, applying to model years 1968 to current, receiving full technician training credit (TTC), OBD testing assumed to start 2002, credit modeled as if 1996 and later model year vehicles receive IM240 test (STAPPA/ALAPCO method), current waiver rates, etc., reflect historical VET operating statistics, and scenarios reflect recent changes due to July 2000 state law:

- a) exemption of motorcycles
 - b) exemption of vehicles over 18,000 pounds GVW
 - c) exemption of vehicles older than 1968 model year.
7. EPA MOBILE5 Information Sheets #1 through #8 (technical updates) have been implemented as follows:

Info Sheet	Subject	Applicability to APCD modeling
1	Caution For Batch Mode Users	N/A
2	Estimating Idle Emission Factors Using MOBILE5	Used (e.f. tables)
3	Loaded/Idle Test and ASM Test I/M Credits	Used (VET 1995+)
Memo	10/29/93 Phil Lorang, EPA (I/M Start Date caution)	Used (VET, IN I/M)
4	Dynamic Registration Preprocessor (optional)	N/A
5	2004 NOx Standard for Heavy-duty Diesel Engines	Used since 8/99

6	New National LEV Standard for LDGV (2001 and later) Also: modeling OBD reduction credit (tentative)	Used since 8/99 NOT used this way
7	NO _x Benefits of RFG when using MOBILE5A	N/A (APCD uses 5B)
8	Tier 2 Benefits for MOBILE5 (interim before MOBILE6)	Used (applied to e.f.)

8. RFG fuel is assumed for Jefferson County, otherwise conventional gasoline is assumed, with RVP controlled by local rule to 7.8 psi in Clark and Floyd Counties, Indiana, RVP 9.0 elsewhere.
9. Vehicle model year distributions, VMT mix, fleet mix, and mileage accumulation rates applicable to Jefferson County are assumed to apply throughout the region.
10. Weighted averaging is applied to emission factors and/or total emissions based on VMT portion of each significant control program group driving in each county (fractions from KIPDA data).

Example: For Jefferson County year 2000 and later, four control strategy sets are typically sufficient to describe average emissions for the county:

Jefferson Residents	Subject to VET program (I/M) and Reformulated Gasoline
Indiana (Clark-Floyd)	Subject to Indiana I/M and RVP 7.8 summer gasoline
Other commuters to Jefferson with RFG	Until 2000, subject to Nonresident Commuter VET Those in Bullitt and Oldham assumed to use RFG As of July 2000, no longer subject to mandatory I/M
Other commuters to Jefferson without RFG	Until 2000, subject to Nonresident Commuter VET Those not within Nonattainment Area (NAA) and assumed not using RFG As of July 2000, no longer subject to mandatory I/M

Control Program Modeled

VMT weight factor

Jefferson Resident, VET, RFG	.784
Indiana Resident, IN I/M, RVP 7.8	.081
Other, no VET, no fuel control	.102
Bullitt-Oldham RFG, no VET	.033

11. Refueling losses are calculated, but subtracted back out of all (VOC) emission factors before use. This allows MOBILE to quantify refueling loss, but APCD officially deals with refueling as part of the area source inventory
12. Temperatures -- summer is modeled at 69EF minimum, 96EF maximum, 86.6EF average (set by 1993 SIP methodology based on 3 years of ozone exceedance data); winter is modeled at

27EF minimum, 28EF maximum, 27.8 average EF (reflects average low for a January in Louisville)

13. Operating Mode Fractions (set by EPA guidance, rarely altered): 20.6, 27.3, and 20.6, in order, corresponding to average "commuter trip" conditions incorporated into the Federal Test Procedure (parameters set assumptions for cold starts, hot starts, stabilized mode).
14. Fuel oxygenates -- conventional gasoline in the Louisville area has historically often been blended with 10% ethanol. Since evaporative VOC loss is sensitive to alcohol content, it is necessary to establish model parameters for ethanol for areas not using RFG. Ethanol is assumed to have .200 market share, .027 oxygen content (assumes less than maximum .035). MTBE is modeled at .001 market share (minimal) with .017 oxygen content.

5.2 Vehicle Miles Traveled (VMT) Calculations:

1. For production of the 1993 SIP, Jefferson County, Indiana, and Kentucky reached consensus on the use of HPMS (Highway Performance Monitoring System) values for estimated VMT/day for all milestones, targets, and projections. KIPDA had the responsibility to coordinate acquisition of the data from Indiana and Kentucky DOTs, and to compile them into tables of road speeds and VMT per day for 12 functional classes of roadways. The original VMT estimates were gathered for 1990 actual (sampled) VMT and 2010 projected VMT. By consensus, all intermediate years were interpolated linearly. These data formed the foundation of all mobile source inventories in the 1993 SIP.
2. As new HPMS data were acquired for 1993 through 1996, the need to revise VMT projections became clear. In 1993 a technical revision to HPMS methodology was applied nationally which had the net effect of turning the original 1990 numbers into apparent undercounts. At the same time, an inexorable rise in VMT was apparent locally from year to year. In order to better project years beyond 1996, in 1997 a consensus was reached to linearly extrapolate forward the overall county HPMS historical data from 1993 to 1996, with intent to reexamine the trend by 1999. Countywide VMT was extrapolated by linear regression, except in the case of Oldham County, which showed an anomalous decrease between 1993 and 1996. Since a decrease was unlikely to be realistic, the consensus was to hold Oldham County VMT flat at 1996 levels for future projections. Within each county, relative proportions of VMT by functional road class were held equivalent to 1996 proportions for all future years. The table of VMT produced by this consensus methodology has formed the basis of all mobile source strategic planning from 1997 to the present.
3. In recent months, USEPA expressed reservations about the direct use of HPMS VMT. The EPA argued that VMT should be estimated by use of the existing regional travel demand model supported by KIPDA. The travel demand model dynamically simulates the traffic network, and might predict speeds different than HPMS would depict. A consensus was reached to use the

KIPDA regional travel demand model, calibrated by HPMS 1998-1999 data, to produce official VMT estimates for the baseline and all projected target years.

The following tables outline the VMT and mobile source emissions projections:

VMT 1000/Day

COUNTY	<u>1999</u>	<u>2002</u>	<u>2005</u>	<u>2008</u>	<u>2012</u>
INDIANA					
CLARK	3896	4152	4444	4719	5175
FLOYD	2385	2691	2795	2954	3173
TOTALS	6281	6843	7239	7673	8348
KENTUCKY					
BULLITT	2201	2410	2608	2839	3152
JEFFERSON	21715	23038	23048	23644	24921
OLDHAM	1301	1397	1480	1580	1739
TOTALS	25217	26845	27136	28063	29812
REGIONAL	31498	33688	34375	35736	38160
TOTALS					

6.0 CONTROL MEASURES AND REGULATIONS

This section provides specific information on the control measures implemented in Clark and Floyd counties, including the measures that were part of the 15% volatile organic compound (VOC) reduction plan, CAAA requirements, and additional state measures implemented beyond CAAA requirements.

6.1 Fifteen-Percent Rate of Progress Plan

As a result of Clark and Floyd Counties “moderate nonattainment” designation, Section 182(b) of the CAAA set forth new requirements for the State Implementation Plan (SIP). One of these requirements was for a 15% reduction in VOC emissions from 1990 emissions levels, by 1996, with a plan due November 15, 1993. This requirement is referred to as the 15% Rate of Progress Plan (ROP).

In July 1995, IDEM submitted the final 15% ROP plan to US EPA Region V. This submittal included the 1990 baseline emissions inventory and a complete plan for meeting the 15% VOC emissions reduction requirement. US EPA published final approval of the plan on May 07, 1997 (62 FR 24815).

The total reductions needed in Clark and Floyd Counties by 1996 were 17,109 lbs/day. The 15% plan provided for reductions of 17,215 lbs/day, which exceeded the required 15% reduction (net of growth), through the implementation of five (5) measures mandated by the CAAA, and eight (8) additional measures.

Mandatory Measures. The CAAA mandates certain control measures that may be included in a state's 15% plan. These measures include tighter controls on a number of categories of industrial and area sources. The mandatory measures that apply to Clark and Floyd Counties and were included in the 15% plan are:

- # controls on automobile refinishing operations,
- # wood furniture coatings,
- # shipbuilding and ship repair operations,
- # architectural and industrial maintenance coatings, and
- # volatile organic liquids storage facilities.

All of these measures have been fully adopted and are effective within Clark and Floyd Counties, with the exception of the architectural and industrial maintenance coatings rule. US EPA indicated in a September 10, 1993 memo from John Seitz, Director of Air Quality Planning and Standards, to Regional US EPA Offices, that states may take credit for this federal rule without conducting state rulemaking. The administrative code citations for the state rules are as follows:

- # 326 IAC 8-10. Automobile Refinishing;
- # 326 IAC 8-11. Wood furniture Coatings;
- # 326 IAC 8-12. Shipbuilding or Ship Repair Operations; and,
- # 326 IAC 8-9. Volatile Organic Liquid Storage Vessels.

Additional Measures. In order to achieve the necessary emission reductions, additional measures were selected by Indiana for implementation in Clark and Floyd Counties. The additional measures were:

- # Stage II Vapor Recovery at service stations,
- # gasoline with lower Reid Vapor Pressure (RVP) than is required under the federal RVP program,
- # an upgraded Inspection and Maintenance program for cars and light duty trucks,
- # a ban on residential open burning,
- # installation of gas collection and combustion equipment at municipal solid waste landfills,
- # a ridesharing program, and
- # the installation of thermal incinerators at a printing facility in Clark County.

Six (6) of these measures required promulgation of state rules. The Air Pollution Control Board has fully adopted all of these measures and they were all effective between 1993-1996 in order to achieve the greatest amount of emissions reductions by the 1996 deadline. Those citations are as follows:

- # 326 IAC 8-4-6. Petroleum Sources: gasoline dispensing facilities;
- # 326 IAC 13-3. Control of Gasoline Reid Vapor Pressure;
- # 326 IAC 13-1. Motor Vehicle Inspection and Maintenance (I/M) Requirements;
- # 326 IAC 4-1. Open Burning; and,
- # 326 IAC 8-8. Municipal Solid Waste Landfills.

The remaining measures did not require IDEM rulemaking. The ridesharing program was implemented by the Kentuckiana Regional Planning and Development Agency and resulted in reduced mobile source emissions in Indiana. A State Operating Permit required the installation of thermal incinerators at a printing facility to control emissions.

6.2 Volatile Organic Compound (VOC) Reasonably Available Control Technology (RACT)

Sections 182(b)(2) of the 1990 Clean Air Act Amendments require the States to implement RACT for major stationary sources of VOCs. Indiana has adopted and implemented rules requiring existing major stationary sources of VOCs to meet, at a minimum, RACT. These requirements (326 IAC 8-7) apply to sources in categories covered by control technology guidelines and other major sources of VOCs.

6.3 Nitrogen Oxides (NO_x) Reasonably Available Control Technology (RACT)

Section 182(f) of the CAAA requires the States to implement reasonably available control technology for major stationary sources of NO_x. Indiana has adopted and implemented these requirements for existing sources with potential NO_x emissions greater than 100 tons per year. Indiana's NO_x RACT rules (326 IAC 10-1) were fully implemented prior to the 1996 ozone season.

6.4 Measures Beyond Clean Air Act Requirements

In anticipation of the need for additional reductions beyond Clean Air Act requirements, Indiana worked with the community to identify and implement additional control measures. Thus, in addition to emission reductions that will occur as a result of various federal measures, further reductions in ozone precursor emissions have occurred, or are anticipated to occur, as a result of local and federal control programs. These additional control measures include:

NO_x SIP Call Reductions

The proposed NO_x SIP call is anticipated to result in significant emission reductions upwind and within the Louisville nonattainment area because of the number of large electric utilities located in Kentucky, Indiana, Illinois, and Tennessee. US EPA has also performed county-wide Arollback® modeling to predict future one- and eight-hour ozone design values that are based on the reductions from the NO_x SIP Call. This modeling indicates that the Louisville area will attain the one-hour ozone standard with the implementation of the NO_x SIP Call.

Tier 2 Emission Standards for Vehicles and Gasoline Sulfur Standards

In May 1999, US EPA proposed a federal rule to significantly reduce emissions from cars and light trucks, including sport utility vehicles (SUVs). Under this proposal, automakers would be required to sell cleaner cars, and refineries would be required to make cleaner, lower sulfur gasoline. This rule would apply nationwide. The federal rules would phase in between 2004 and 2009. US EPA has estimated that NO_x emission reductions would be approximately 77% for passenger cars, 86% for smaller SUVs, light trucks, and minivans, and 65-95% reductions for larger SUVs, vans, and heavier trucks. VOC emission reductions would be approximately 12% for passenger cars, 18% for smaller SUVs, light trucks, and minivans, and 15% for larger SUVs, vans, and heavier trucks.

Cold Cleaning Degreasing (326 IAC 8-3)

In November 1998, Indiana adopted a new rule that establishes a vapor pressure limit for solvents used in cold cleaning degreasers in Clark and Floyd Counties. Reducing the vapor pressure of the solvent used in turn results in decreased emission of VOCs and HAPs (hazardous air pollutants). Suppliers are required to provide compliant degreasing solvents to users located in Clark and Floyd Counties and to keep transaction records. Users are required to use only low vapor pressure solvents and to keep records of their purchases. The rule, which phases in over a two-year period, will be fully implemented by March 2001. IDEM has estimated that implementation of this rule will result in a sixty-seven percent (67%) reduction from cold cleaning degreasing emissions. Emissions reductions are expected to be an additional 154.48 tons per year.

6.5 Controls to Remain in Effect

Indiana intends to maintain the control measures listed above after redesignation. Indiana hereby commits that any changes to its rules or emission limits applicable to VOC and/or NO_x sources, as required for maintenance of the ozone standard in Clark and Floyd Counties, will be submitted to US EPA for approval as a SIP revision.

Indiana, through IDEM's office of Air Quality and its Office of Enforcement, has the necessary resources to actively enforce any violations of its rules or permit provisions. After redesignation, it intends to continue enforcing all rules that relate to the emission of ozone precursors in Clark and Floyd counties.

6.6 New Source Review Provisions

Indiana has a longstanding and fully implemented New Source Review procedure. This is addressed in rule 326 IAC 2. The rule includes provisions for the Prevention of Significant Deterioration (PSD) in 326 IAC 2-2. The implementation of this program, applicable to attainment areas, has been delegated to the State by US EPA.

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Any facility that is not listed in the 1999 emission inventory, or for the closing of which credit was taken in demonstrating attainment, will not be allowed to construct, reopen, modify, or reconstruct without meeting any applicable permit rule requirement. The review process will be identical to that used for new sources.

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7.0 MODELING

7.1 Modeling Analysis

Page 3 of the Redesignation Guidance states that “No such supplemental modeling is required for ozone nonattainment areas seeking redesignation.” However, IDEM, Jefferson County APCD, and KDEP have performed extensive modeling to determine how to achieve attainment for this area. The results of that modeling were submitted to US EPA on November 15, 1999 as part of the attainment demonstration for that area. This demonstration included information from IDEM / LADCO modeling, US EPA and OTAG modeling, and the Louisville SAI project. The modeling analyses determined that the Louisville area is significantly impacted by ozone and ozone precursor transport, that additional VOC reductions would not be sufficient to solve the nonattainment problem in the area, and that regional NO_x reductions would be necessary.

At the time of the November 1999 submittal, Indiana and Kentucky were in the process of adopting rules that would reduce emission NO_x rates from utilities to 0.25 lb/MMBtu. The modeling supporting the November 15, 1999 attainment demonstration showed a reduction of 8 to 12 ppb in peak ozone values for the non-attainment area associated with a regional 0.25 lb/MMBtu emission rate, more than enough for the area to meet the ozone standard. Since that time, the federal court reinstated the US EPA NO_x SIP Call and emission rate requirements of 0.15 lb/MMBtu for utilities (implemented through a regional cap and trade program). All affected eastern states have begun to adopt rules compliant with the NO_x SIP Call. Modeling performed by the LADCO states since that time indicates this level of control will result in additional peak ozone reductions of several ppb for the Louisville nonattainment area. This modeling was included in Indiana’s attainment demonstration for Chicago / Northwest Indiana as Figure 19 and is included in this document as Figure 2.

Tier II vehicles and low-sulfur fuels were not included in the modeling support of the November 15, 1999 submittal because they are not scheduled to take effect until after the attainment date of 2003. However, LADCO performed modeling for Chicago / Northwest Indiana to evaluate the effect of these programs in 2007. For that area, Tier II / low-sulfur resulted in a 1 to 2 ppb reduction in peak ozone concentrations. Greater market penetration of Tier II vehicles and low-sulfur fuels in 2012 should provide additional ozone reductions. Figure 3 is a copy of Figure 11 from the Lake and Porter attainment demonstration. It compares the effects of Clean Air Act Controls with and without Tier II / low-sulfur programs, and demonstrates that similar reductions are expected for the Louisville nonattainment area.

LADCO and IDEM modeling shows that attainment of the ozone standard will be maintained with an increasing margin of safety over time.

8.0 CORRECTIVE ACTIONS

8.1 Commitment to Revise Plan

As noted in Section 4.5 above, Indiana hereby commits to review its Maintenance Plan eight years after redesignation, as required by Section 175(A) of the CAAA.

8.2 Commitment for Contingency Measures

Indiana hereby commits to adopt and implement expeditiously necessary corrective actions in the following circumstances:

A Level I response would occur in the event that the ozone standard is violated and that violation is not found to be due to an exceptional event, malfunction, or noncompliance with a permit condition or rule requirement. An evaluation will be performed by IDEM to determine all additional control measures needed to assure future attainment of NAAQS for ozone. In this case, measures that could be implemented in a short time would be selected so as to be in place within 18 months after Indiana is aware that a violation has occurred.

A Level II response would be implemented in the event that:

- 1) The monitored ambient levels of ozone exceed 0.120 ppm more than once in any year at any Indiana site; or
- 2) The level of VOC or NO_x emissions increases above the emission budget which consists of the base year 1999 emission inventory as submitted with this plan.
- 3) The level of total Louisville nonattainment area VOC or NO_x emissions shown in the inventory for any year has increased above the level recorded for the prior year sufficiently so that an increase of the same magnitude in the following year would result in a level of emissions exceeding those recorded for 1999, the base year, by 5% or more.

A Level II response will consist of a study to determine whether the noted trends are likely to continue and, if so, the control measures necessary to reverse the trend taking into consideration ease and timing for implementation, as well as economic and social considerations. Implementation of necessary controls in response to a Level II trigger will take place as expeditiously as possible but in no event later than 18 months after Indiana is aware that the levels specified have been exceeded.

Adoption of any additional control measures is subject to necessary administrative and legal process. This process will include publication of notices, an opportunity for public hearing, and other measures

required by Indiana law for rule making by state environmental boards. This law provides accelerated procedures for adopting interim control measures in the event of an emergency affecting public health.

In any event, the implementation plan would include an analysis, by a method mutually agreed upon by Indiana and the US EPA, to demonstrate that the proposed measures are adequate to return the area to attainment.

8.3 List of Contingency Measures

Contingency measures to be considered will be selected from those described below or from any other measure deemed appropriate and effective at the time the selection is made. The selection between measures will be based upon cost-effectiveness, emission reduction potential, economic and social considerations or other factors that IDEM deems appropriate. IDEM will solicit input from all interested and affected persons in the area prior to selecting appropriate contingency measures. All of the listed contingency measures are potentially effective or proven methods of obtaining significant reductions of ozone precursor emissions. Because it is not possible at this time to determine what control measure will be appropriate at an unspecified time in the future, the list of contingency measures is comprehensive. We anticipate that only a few of these measures will be required.

- 1) Reformulated gasoline program.
- 2) Broader geographic applicability of existing measures.
- 3) Tighten RACT on existing sources covered by US EPA Control Technique Guidelines issued in response to the 1990 CAAA.
- 4) Apply RACT to smaller existing sources.
- 5) A fully enhanced inspection/maintenance program.
- 6) One or more transportation control measures sufficient to achieve at least 0.5% reduction in actual area wide VOC emissions. Transportation measures will be selected from the following, based upon the factors listed above after consultation with affected local governments:
 - a) Trip reduction programs, including, but not limited to, employer-based transportation management plans, area wide rideshare programs, work schedule changes, and telecommuting.
 - b) Transit improvements.
 - c) Traffic flow improvements.

- d) Other heretofore undiscovered transportation measures not yet in widespread use that affect state and local governments deemed appropriate.
- 7) Alternative fuels programs for fleet vehicle operations.
- 8) Controls on consumer products consistent with those adopted elsewhere in the United States.
- 9) Require VOC or NOx emission offsets for new and modified major sources.
- 10) Require VOC or NOx emission offsets for new and modified minor sources.
- 11) Increase the ratio of emission offsets required for new sources.
- 12) Require VOC or NOx controls on new minor sources (less than 100 tons).

No contingency measure shall be implemented without providing the opportunity for full public participation during which the relative costs and benefits of individual measures, at the time they are under consideration, can be fully evaluated.

8.4 VOC Sources Subject to Future Controls

Additional VOC reductions are expected from proposed or future Title III hazardous air pollutant standards (HAPs), since most HAPs are also VOCs. The Louisville nonattainment area sources potentially subject to these future controls and the expected VOC emissions based on the HAP requirements has not been determined. Because these requirements have not yet been finalized, no credit is taken for the reductions at this time.

9.0 PUBLIC PARTICIPATION

In accordance with Section 100 (a) (2) of the CAAA, public participation in the SIP process is provided for as follows:

Notice of availability of the ozone redesignation documents and the time and date of the public hearing was published in the Indianapolis Star and News and local papers for the Louisville nonattainment area on March 26, 2001.

The Public hearing to receive comments on the redesignation request is currently scheduled for April 26, 2001, at the Clarksville Branch Library, located at 1312 Eastern Boulevard, in Clarksville, Indiana. A summary of the comments received and IDEM's responses thereto, will be included as an appendix prior to submittal to US EPA.

In addition, IDEM established a local workgroup to assist in the development of an air quality plan that will assure attainment of air quality standards for ozone and particulate matter in Clark and Floyd Counties. This group consisted of representatives from various sectors of the community, such as local government, industry, and small businesses. Discussions held by this workgroup included submittal of an attainment demonstration and subsequent redesignation request.

10.0 CONCLUSIONS

The Louisville nonattainment area has attained the NAAQS standard and complied with the applicable provisions of the 1990 Amendments to the Clean Air Act regarding redesignations of moderate ozone nonattainment areas. Documentation to that effect is contained herein. IDEM has prepared a State Implementation and Maintenance Plan that meets the requirement of Section 110 (a) (1) of the 1990 Clean Air Act.

Indiana has performed an analysis and believes the air quality improvements are due to permanent and enforceable measures. In addition, Indiana believes that significant regional NO_x reductions will ensure continued compliance (maintenance) with the standard and that all CAAA requirements necessary for redesignation have been met.

Based on this presentation, Indiana believes that this area meets the requirements for redesignation under the CAA and US EPA guidance. Furthermore, because this area is subject to significant transport of pollutants, significant regional NO_x reductions will ensure continued compliance (maintenance) with the standards with an increasing margin of safety.

The State of Indiana hereby requests that the Indiana portion of the Louisville ozone nonattainment area be redesignated to attainment simultaneously with US EPA approval of the Indiana State Implementation and Maintenance Plan provisions contained herein.

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